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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,535	02/26/2004	Yoshitaka Araki	2986-PAT	6909

30084 7590 10/02/2006

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EXAMINER
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FRANCIS, FAYE

ART UNIT	PAPER NUMBER
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3725

DATE MAILED: 10/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/788,535

Applicant(s)

ARAKI, YOSHITAKA

Examiner

Faye Francis

Art Unit

3725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 8-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hockmeyer [5,497,948] in view of Shen [5,611,619] and Dairoku et al. [US 2003/0008946], hereinafter Dairoku.

Hockmeyer discloses in Figs 1-7, a compound dispersing [basket media mill 10] comprising a basket-shaped vessel 60, the vessel adapted contain dispersing media particles [beads 76] in an interior cavity formed therein, the vessel adapted for submersion in a tank [basket 12] filled with a compound [col 2 lines 58-67], a plurality of stirrer vanes [rods 140] housed within the vessel, each engaged at first ends with an elongated shaft extending in the interior cavity, the shaft defining a central axis of the cavity; each stirrer vane extending a first distance from the axis to a distal edge; means to rotate the shaft thereby rotate the stirrer vanes, a secondary vanes [impeller assembly 150] and a driving mechanism [col 4 lines 41-52].

Hockmeyer does not disclose a plurality of plate shaped stirrer vanes, a rotation driving mechanism for rotating the stirrer vanes in the vessel along with the vessel in opposite directions, a plurality of stirrer fins each engaged at first end with an interior wall of the vessel whereby the distal end reaches a momentary substantial alignment

with a corresponding the distal edge the of one of the stirrer vanes during each rotation and a gap formed between the distal end and the distal edge during the momentary alignment.

Shen teaches, in the relevant art, the concept of providing a mixing container 2 with a rotation driving mechanism for rotating the stirrer vanes [mixing blade unit 5] in the vessel along with the vessel in opposite directions [col 3 lines 15-44] and a plurality of stirrer fins [blades 53] each engaged at first end with an interior wall of the vessel whereby the distal end reaches a momentary substantial alignment [one on top of the other] with a corresponding the distal edge the of one of the stirrer vanes 5 during each rotation and a gap[Fig 3] formed between the distal end and the distal edge during the momentary alignment. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the device of Hockmeyer with the rotation driving mechanism for rotating the stirrer vanes in the vessel along with the vessel in opposite directions as taught by Shen in order to more efficiently disperse the material compound within the basket. Additionally, it would have been obvious to provide the device of Hockmeyer with the plurality of stirrer fins in order to better mix the material compound within the basket.

Dairoku teaches that plate shaped stirrer vanes are conventional [Fig 2]. It would have been obvious to one of ordinary skill in the art at the time the invention was made, in view of Dairoku to make the stirrer vanes in the modified device of Hockmeyer in a shape of a plate in order to even further enhance the movement of the mixture within vessel.

With respect the limitation in claims 17-18 that the dispersing media particles having a diameter; and the gap being a distance between 6 times the diameter, this limitation would have been obvious design choice once the basic structure was known, as it solves no stated problem [see page 20 of the specification] and of no patentable merit.

### ***Response to Arguments***

3. Applicant's arguments filed 8/30/06 have been fully considered but they are not persuasive.

In response to applicant's argument on pages 2-3, the examiner would like to point out that Shen and Dairoku references have been applied only to show that stirrer fins each engaged at first end with an interior wall of a vessel and plate shaped stirrer vanes respectively are conventional.

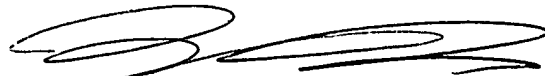
### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Faye Francis whose telephone number is 571-272-4423. The examiner can normally be reached on M-F 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 571-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FF

A handwritten signature in black ink, appearing to read 'Faye Francis', with a stylized, flowing script.

Faye Francis  
Primary Examiner  
Art Unit 3725